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# STRENGTHENING UTILITIES AND PROMOTING ENERGY REFORM (SUPER) UTILITY UNBUNDLING & ELECTRICITY MARKET REFORM

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## INTRODUCTION

Reliable and affordable electricity is essential to drive economic growth, reduce poverty, and facilitate socio-economic development in emerging economies. The quality of electricity services is driven primarily by the performance of the companies that generate and distribute electricity in a given market. When these companies perform poorly, consumers may experience power outages and weak customer service. Consumers may also pay high costs for poor or inconsistent power even as the companies themselves fall into financial distress. These conditions push policymakers to seek options to respond to the underlying challenges.

A common target of reforms is to restructure power markets to create new institutional arrangements that will better meet the needs of consumers, and consistently provide safe and reliable power. In particular, policymakers may opt to unbundle incumbent utilities - creating different companies from an existing monopoly - to try to improve electricity service and reduce costs through improved management and competition. In addition to unbundling, market restructuring often includes the development of independent market operators to oversee dispatch of power, as well as independent market regulators to ensure that each actor is both financially and technically accountable to the consumers. There is a robust literature on the results of power market restructuring and utility unbundling, based on the collective experiences across both developed and developing country markets over the last several decades.

In recent years, the process of market restructuring and unbundling has shifted in the face of the increased development of renewable energy. The intermittent power produced by renewable energy sources such as solar and wind place an additional strain on the grid system and may create additional challenges in planning and operating a power system. In particular, operators must focus on both the long-term reliability of the power sources and incentivizing short-term flexibility with increased variable generation.<sup>1</sup> The economic justification for market restructuring remains strong; however, the technical reasoning must consider the new challenges posed by increased variable and distributed generation.

This paper provides an overview of the typical goals of power market restructuring reforms and the different market arrangements that can result. It also provides details on the steps required to unbundle a utility and key questions to inform consultations and decision-making in countries where these reforms are under consideration.

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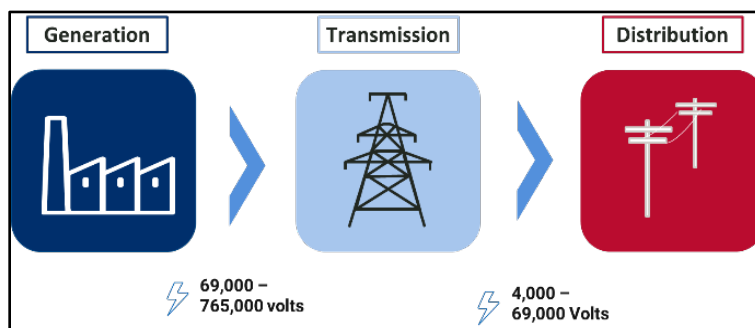
<sup>1</sup> NATIONAL RENEWABLE ENERGY LABS, EVOLUTION OF WHOLESALE ELECTRICITY MARKET DESIGN WITH INCREASING LEVELS OF RENEWABLE ENERGY GENERATION, 2014

## BACKGROUND

Figure 1: The Three Sectors of the Electricity Value Chain

The electricity value chain comprises three sectors:

**Generation** originates at the power plant, from which electricity moves over long distances at high voltages through the **transmission** network before entering the **distribution** system to deliver power to consumers.

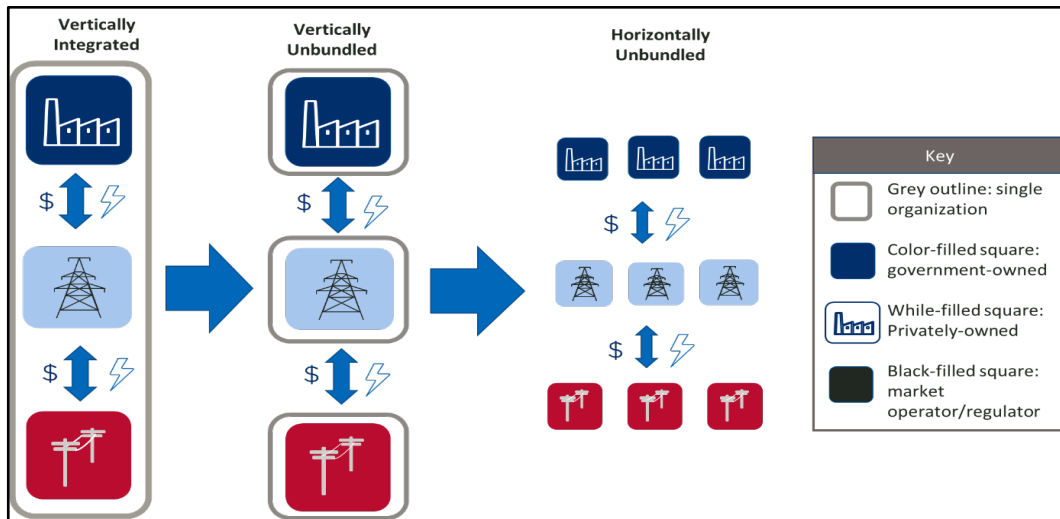


In some power markets, a single **vertically integrated utility** is responsible for all the sectors of the electricity value chain, resulting in a monopoly. When confronted with population growth, increased electricity demand, and evolving consumer needs, these utilities have often struggled to be both technically and financially accountable to end-users. As a result, reforms have been initiated in many markets to achieve better performance. These reforms typically included **corporatization**, where government departments were re-established as state-owned enterprises. This was followed by **commercialization** where new utilities were given mandates to act as businesses rather than following government-directed goals. In some cases, utilities also went through a full or partial **privatization**, with ownership transferred from government to the private sector, to increase access to finance and expertise, improve management, and introduce commercial discipline.

As part of this wave of reforms, many governments also initiated power market restructuring, including the unbundling of the vertically integrated utility. Unbundling can include **vertical unbundling**, where responsibilities for electricity generation, transmission, and distribution are allocated to distinct entities which operate independently. Each segment of the value chain can also undergo **horizontal unbundling** which introduces competition by creating multiple entities which may have responsibility for providing services in the same sector. Vertical unbundling is considered the first degree of unbundling, horizontal unbundling the second degree, followed finally by competition.<sup>2</sup>

<sup>2</sup> RETHINKING POWER SECTOR REFORM IN THE DEVELOPING WORLD: WORLD BANK, 2020, p. 116

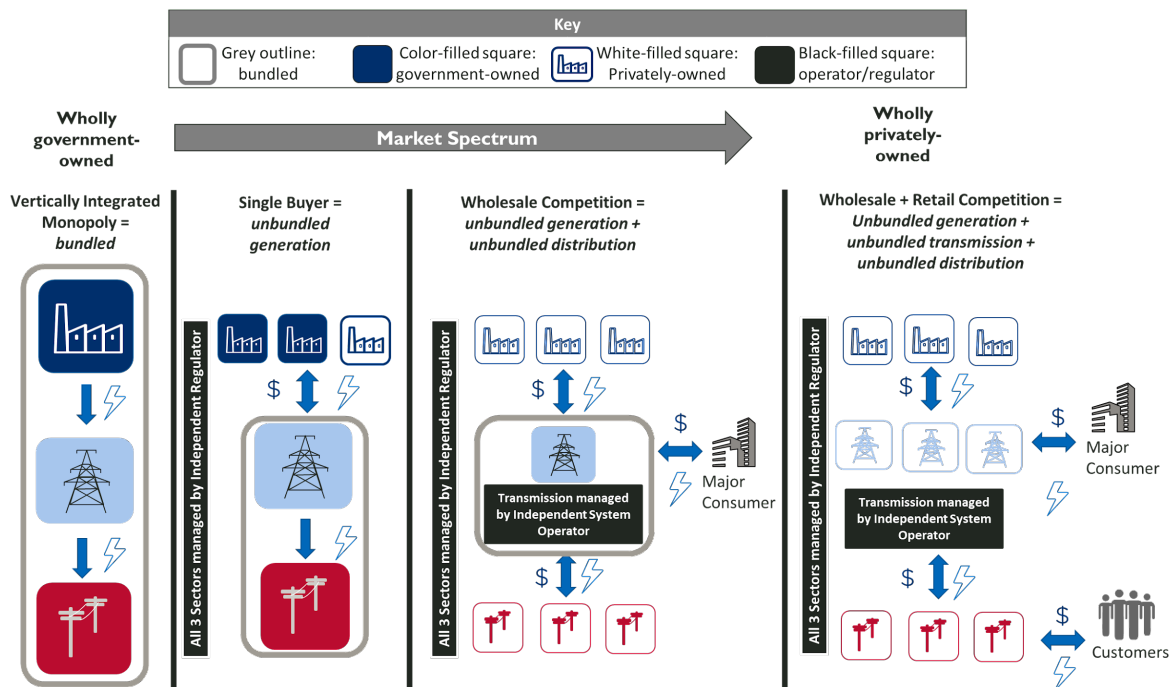
Figure 2: Vertical Unbundling and Horizontal Unbundling



Power market restructuring and utility unbundling reforms can lead to a diverse set of institutional outcomes along a spectrum of market types, as summarized in Figure 3. The phases occur in a spectrum: from complete government ownership of the entire value chain and ending with private-ownership of the full value chain. The phases of market restructuring and the resulting market types are cumulative with each phase building upon the prior phase. However, successful market restructuring efforts should be tailored to the specific market needs, and do not always follow the same trajectory.

Unbundling occurs in steps across the spectrum of market types, but full unbundling (both vertical and horizontal unbundling of all three sectors) does not occur until the end of the spectrum of market types, with full private ownership of companies across the market. Thus, unbundling is not a single step as part of the market restructuring process, but rather, a series of steps which occur throughout the evolution of the market.

Figure 3: Phases of Power Market Restructuring and Utility Unbundling Reforms along the Market Spectrum



Vertical and horizontal unbundling each bring distinct yet linked outcomes, which should be reviewed when considering a market restructuring strategy. In theory, by operating under market forces, utility operations would be more cost-efficient, more transparent, and more technically efficient. These benefits are passed to the end-user/customer. However, the results of efforts to unbundle and restructure power markets have been mixed, and the process of unbundling and market restructuring has proved to be politically challenging.<sup>3</sup>

Key benefits typically targeted through **vertical unbundling and privatization** include:

- **Cost-savings:** By operating under market conditions, utilities must implement cost-efficient measures to provide the necessary services to end-users, while also generating sufficient income to cover operating costs.

In many cases, unbundling is accompanied with elements of privatization. Vertical unbundling alone may yield gains in transparency and governance; conversely, this model may reduce efficiencies and economies of scale, as the three separate government-owned entities must now each independently operate the corporate business functions (human resources, communications, etc.). In most cases, vertical unbundling should be combined with privatization (or other market reforms) to yield significant improvements in operations, transparency, and accountability.<sup>4</sup> Often, the generation sector is the first

<sup>3</sup> TAKING STOCK OF THE IMPACT OF POWER UTILITY REFORM IN DEVELOPING COUNTRIES: WORLD BANK, 2020; REFORMING ELECTRICITY REFORMS? EMPIRICAL EVIDENCE FROM ASIAN ECONOMIES: OXFORD INSTITUTE FOR ENERGY STUDIES 2016;

<sup>4</sup> RETHINKING POWER SECTOR REFORM IN THE DEVELOPING WORLD: WORLD BANK, 2020, p. 128

to introduce private participation in the form of independent power producers (IPPs) but other options are possible.

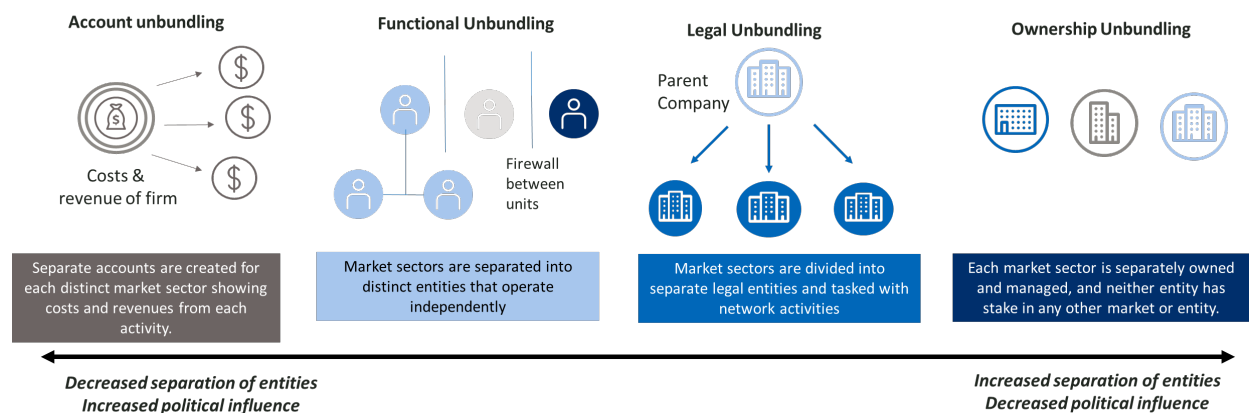
Horizontal unbundling introduces competition to each sector, with private companies competing against each other and former government entities. Horizontal unbundling can be applied individually to each sector, and competition is generally first introduced in the generation sector. Key benefits from horizontal unbundling and increased competition may include:

- **Cost-savings:** More than one entity in each sector forces companies to compete to provide lower cost while also providing higher quality services and value to end-users. Competition can drive costs down and potentially pass savings on to consumers.
- **Risk management:** Multiple actors within the sector also distributes risk among multiple actors and reduces overall impact. For example, if a single generator suffers a failure, the entire electricity supply chain is not halted.

## KEY STEPS & PRACTICAL CONSIDERATIONS

Unbundling may occur in various methods, with varying degrees of effectiveness towards achieving independence of each actor, transparency, and accountability. Each stage of unbundling (Figure 3) may be completed using various components of unbundling, as described below (Figure 4). The various components of unbundling provide gradually increased levels of separation of the entities, combined with increasing independence from political influence.

Figure 4: Components of Unbundling



## SETTING THE STAGE FOR UNBUNDLING

When initiating the process of restructuring a power market, it is critical for policymakers across the government to establish a vision and a clear set of objectives. These objectives will help guide decisions to identify the target market structure that will replace the existing arrangements. At this stage, it is useful to review international experience and choices made in similar markets and compare these factors with local conditions including power market size and growth potential, current institutional



arrangements, and the existing policy and legal framework. Local conditions will influence both market design and the timeline for delivering on the desired market structure.<sup>5</sup>

It may be useful to develop a defined roadmap or other document to guide the process of restructuring. This would state the vision and objectives, define the steps to implement the restructuring process, and assign target dates and responsibilities for implementing the plan. Power market restructuring processes may take place over a long period of time in a phased transition from original arrangements to the desired end-state. Policymakers should develop an outreach and consultation strategy as part of the roadmap. It is important to provide opportunities for interested stakeholders to engage with the decision-making process, including incumbent market participants, potential domestic and international investors, and the public who represent power sector consumers. This process of engagement can help build support for the restructuring process and identify potential obstacles to implementing the transition.

## CREATE THE POLICY & LEGAL STRUCTURE

A country's legal framework will influence the unbundling and market restructuring process. Any full or partial unbundling of a utility must be supported by legal authority (policies or regulations) that allow such separation and provide legal authority to the resulting entities. Energy sector legislation may specify an incumbent utility as having responsibility for a variety of activities which would be distributed among different entities following unbundling. For example, when separating the generation unit and allowing IPPs, laws may need to be passed which allow private generators access to the transmission infrastructure, and which give the utility the legal authority to purchase power, among other details which must be confirmed. State-owned enterprise laws may govern corporate governance and oversight requirements as well as labor conditions.

Key questions and considerations include:

- Does energy sector legislation permit unbundling of incumbent utilities or does it specifically restrict unbundling? What are the prospects for amending legislation given the current political environment?
- Who will own the successor companies once the incumbent utility is unbundled? If they will be publicly owned, which government entity (ies) will have oversight responsibilities for the new companies?
- Is there legislation governing state-owned enterprises or do they fall under general laws governing companies or other organizations? Who will be on the Board of Directors at new entities?

Key actions in this phase may include:

- Conduct an analysis of the existing policy and legal framework to identify any provisions that would prohibit or restrict the intended unbundling process.
- Draft legislation (or policies) to clearly allocate roles and responsibilities within the envisioned new market structure.

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<sup>5</sup> A REVIEW AND EXPLORATION OF THE STATUS, CONTEXT AND POLITICAL ECONOMY OF POWER SECTOR REFORMS IN SUB-SAHARAN AFRICA, SOUTH ASIA AND LATIN AMERICA. ENERGY AND ECONOMIC GROWTH. STATE-OF-KNOWLEDGE PAPER SERIES.



- Allocate responsibilities for different segments of the electricity value chain to new entities, which may include state-owned companies or private companies, such as IPPs.
- Where applicable, the government may need to draft and propose new or amended legislation to enable the unbundling process.
- Determine requirements for ownership and oversight of the new companies formed after unbundling and develop a strategy to ensure that new companies will have independent oversight (for example, by avoiding overlapping members of the Boards of Directors).

## UPDATE REGULATORY AND MARKET FRAMEWORK

Utility unbundling changes the institutions involved in power sector operations and financing. These changes require updates to the regulatory and market framework to ensure the power system is managed effectively. Updating policies to clearly identify roles and responsibilities within the updated market structure is critically important to provide guidance to both internal and external stakeholders.

The role of power sector planning is especially important. For example, power sector planning (long-term and short-term) may be conducted centrally within the vertically integrated utility. It is critical to clearly assign these responsibilities to one or more new entities after unbundling. In a vertically integrated utility, there are established processes for allocating revenues from customers to different parts of the utility to fund operations and investment. After unbundling, one or more independent distribution companies may have responsibility for collecting revenues and then paying other companies (who may themselves pay other companies in the market). New entities may need to apply for licenses to operate and/or have existing licenses transferred to their names. Tariff methodologies may need to be updated to reflect a change in how costs are estimated and allocated. New performance standards and reporting requirements may also need to be set.

Key questions and considerations:

- Who is responsible for system planning (long-term and short-term) and system operations in the incumbent utility? Where will these responsibilities be after unbundling? What obligations will different entities have to support these processes, such as the provision of technical and financial data and responsiveness to direction from another entity (e.g., dispatch directions)?
- What licenses are held by the incumbent utility? Can existing licenses be transferred or assigned to new entities or must they submit new applications? Would unbundling create new functions that would require the creation of new licenses? Will reporting requirements and performance standards require updating?
- Is the current tariff methodology structured in a way that would allow costs and revenues to be allocated among the new entities created after unbundling? Will each entity submit its own tariff application for consideration by the regulator or will costs be integrated into tariff applications from other entities (e.g., the distribution company or single buyer)?
- What agency has the authority to solicit bids for new generation or other infrastructure? To review and approve power purchase agreements (PPAs)?

Key actions in this phase may include:

- Review existing power market rules and procedures especially related to system planning, investment planning, and system operations to identify impacts of unbundling.

- Where necessary, new market rules or procedures should be developed, and training provided to responsible parties along with a work plan to support start-up of the new market procedures.
- Define the flow of revenues through the market from customer bills to payments to generators and develop clear procedures for billing and payments including the schedule for billing and processes for measurement of power delivered (including metering locations and verification).
- Review and update the existing tariff methodology to enable separate cost-of-service analyses that cover each different entity in the market (requirements may differ depending on the extent of market liberalization and the extent of competition in the market).
- Review and update/create new licenses for the successor entities after unbundling and create reporting and regulatory requirements to support license monitoring.

## COMPONENTS OF UNBUNDLING

Each component of unbundling presented below, presents a different level of separation and independence, both from political forces, and from other entities within the market. This general trajectory applies for each stage of unbundling – the individual separation of each market sector – and represents the spectrum of disaggregation for the utility over time. Account unbundling provides the lowest level of separation and independence; whereas, ownership unbundling provides the highest, most rigorous level. For each component, the questions and considerations of the prior components of unbundling should also be considered. The accounting and functional unbundling steps may take place at any time prior to the formal creation of new companies. In some cases, they may form part of internal reorganizations or financial management changes that do not lead immediately to unbundling. Integrated utilities can operate for some time with internal functional and accounting arrangements that mimic conditions that will prevail after unbundling which may also provide an opportunity to identify and mitigate any risks to the full unbundling process.

### ACCOUNT UNBUNDLING

The unbundling of accounts within the utility requires the creation of separate financial accounts for each sector (at least generation, transmission and distribution), to support its operations as an independent business, detailing costs that will form the basis of payments within the new market. Many vertically integrated utilities already practice some level of accounting separation - such as allocating costs for staff, spare parts, and other expenses to individual business units such as generation or distribution services. However, there are frequently certain shared costs (such as for human resources, IT services, debt service, etc.) that are aggregated for the company as a whole. Further, revenues may not be earmarked for specific business units and there may be limited internal pricing, masking the impact of revenue shortfalls. Accounting separation may support improved financial management and efficiency while creating the basis for a future unbundling process.

Key questions and considerations include:

- What level of accounting separation is already practiced at the incumbent utilities? What costs are currently allocated to centralized cost centers or departments that support multiple business units? Does the utility currently employ any internal pricing mechanisms?
- Are there any assets or liabilities that will be difficult to allocate to a specific entity because of their shared nature?

- What is the current level of cost recovery by the utility? How are revenue shortfalls accommodated and which business units are impacted? What does this imply for impact on tariff levels or the need for subsidies from the government?
- What accounting systems are in use by the incumbent utility? What financial structures need to be created to receive and send payments between different companies in the new system?

Key actions in this phase may include:

- Prepare pro forma financial statements to support planning for accounting separation.
- Based on new accounts, estimate costs for each business unit, capturing any changes in costs due to staffing and organizational changes resulting from unbundling, and conduct financial analysis to estimate payments between different business units.
- Identify a date for transition to the new account structure (e.g., start of a new fiscal year) and adjust accounting software, accounting manuals, etc., necessary to support the new accounting system.

## FUNCTIONAL UNBUNDLING

In a vertically integrated utility, operations and staff may be grouped in departments or units that do not align with the separate segments of the electricity value chain. For example, staff may be grouped under regional departments rather than technical departments. Staff associated with transmission and distribution may fall under the same department. Shared services, such as human resources, IT, fleet management, and procurement, may be assigned to central units rather than to a functional business unit, like distribution. Functional unbundling is the division of the operational and business-related tasks into the three (or more) distinct sectors: generation, transmission, and distribution. Importantly, the distinct sectors/functions are to operate wholly independent of each other, possibly requiring a firewall within the utility to separate them in the period prior to legal separation into different companies.

Key questions and considerations include:

- What perspective do employees have about unbundling or market restructuring?
- How are staff for services like accounting and financial management, procurement, legal, IT, human resources, etc., assigned in the incumbent utility? Are there central departments for these services or are they assigned to technical business units?
- What are the views of labor unions about an unbundling process? What role would the labor union play in an unbundling process?

Key actions in this phase may include:

- Review existing balance sheet and account structure in the context of planned new functional units and identify necessary changes to allocate assets, liabilities, and costs to new functional units.
- Create a change management and employee engagement plan that states the vision for the unbundling and establishes opportunities for consultation and feedback to understand employee concerns and build support for the process.
- Determine how corporate management functions will be provided to each functional unit of the utility.

- Create processes and information systems to ensure the firewall between functional units is maintained.

## LEGAL UNBUNDLING

Through legal unbundling, a separate legal entity is created, to formalize the separation created through accounting and functional unbundling. However, it must be noted that the new legal entity may still be owned by the utility as a subsidiary; thus, the new company may not be entirely independent of political influence. More profound changes in management and operations may therefore be necessary to prevent unbundled utilities discriminating against (or preventing participation) other market players and restricting their effective participation in the market.

The creation of a new company will result in changes for the utility work force ranging from a new supervisor to moving to a new company. Contracts will likely need to be amended and union agreements may need to be renegotiated. In some cases, unbundling can create new opportunities - for example, leadership positions in the newly formed companies. However, employees may react negatively to a planned unbundling process due to fears about its impact on their careers or benefits, or simply due to uneasiness about change. Funds to meet long-term obligations such as pensions and health care costs must be accounted for. Consistent and frequent communications with employees are needed to facilitate a smooth transition.

In addition to the considerations of account and functional unbundling, key questions and considerations include:

- How will the new company(ies) be legally established? How much influence will the parent company exert over the new entities?
- How will staff be hired to fill new positions in the successor companies, especially management positions that previously did not exist (e.g., CEO and the heads of departments)? Will staff be appointed directly to these positions or will a competitive process be used?
- What responsibilities will each entity hold? How will the management structure of each entity be formed? How will independence of management be confirmed?
- How will existing contracts and/or debts be transferred to the new legal entity?
- What do employee contracts state regarding a change in terms? Will job descriptions, salaries, and benefits be impacted? Will any staff be retrenched as part of the unbundling process?
- What long-term obligations to employees (pensions, health care funds) are held by the incumbent utility? Where will those be held and how will they be funded after unbundling?

Key actions in this phase may include:

- Create the organizational structure of each new legal entity and state a vision for the roles and responsibilities of all entities.
- Prepare a staffing plan for the successor utilities which spells out functional requirements, establishes an organizational structure, estimates staffing numbers, and provides job descriptions.
- Populate the organizational chart of the new legal entities with names of incumbent staff and/or identify positions that will be filled through competitive selection processes.

- Assess the legal ramifications (under existing law/policy) of the change in ownership of portions of the utility. Ensure that each new entity has the authorities to conduct business within the market.
- Amend contracts with suppliers and/or financiers to the new company.
- Review employee contracts to identify necessary steps to amend contracts and engage employees and/or labor unions on steps and timing of the amendment process.

## OWNERSHIP UNBUNDLING

At each phase of unbundling, a distinct sector of the market is opened to private investment, thus opening the market to a new management and ownership model. To compete with the private entities, the former government-owned utility will likely need to re-organize as well, as wholly separate from government, and operate under corporate management concepts. This last component of unbundling is especially important, as it removes the ownership of the assets from political control, thus magnifying the efforts of the previous phases to separate the utility from government influence.

In addition to the considerations of account, functional, and legal unbundling, key questions and considerations include:

- What resources are needed to support start-up of the successor entities, including working capital needs?
- If ownership unbundling will also include privatization - Are there private sector entities interested in investing in the new company, to transfer the previously government-owned entity into private ownership? How will any existing contracts be transferred? Can and how will the debts of the government-owned entity be transferred to the private owner?
- Who will form the membership of the Boards of Directors? Are there requirements for certain representation? What type of expertise is needed for these Boards?
- What steps must be taken to transfer contracts with suppliers?
- What steps must be taken to amend employee contracts and who needs to approve these changes? Are these steps different if employees are transferred to a public entity versus a private company?

Key actions in this phase may include:

- Review and update the utility's asset base to establish a complete picture of assets for allocation to new entities. Special attention may be paid to common assets (e.g., vehicles, some inventory items, computers) and to the allocation of assets which are on shared sites or where the boundaries between systems may not be clear, such as high voltage transmission assets on the premises of a generation facility.
- Implement legal steps to establish new companies, such as filing articles of incorporation and nominating an independent Board of Directors. Develop corporate governance resources such as by-laws.
- Create independent corporate resources such as a company name, logo, and websites.
- Identify and establish office space for new companies.
- Assign or transfer ownership of assets, contracts, and service agreements to new companies.
- Transfer all staff to new companies and initiate operations.

## KEY EXTERNAL CONSIDERATIONS

Throughout the restructuring process, governments should consider not only the internal steps of restructuring (legal, functional, accounting, ownership) but also the external impacts of each new phase of market development. A significant part of the restructuring process may require public relations and stakeholder involvement. The following issues should be considered:

### CURRENT CONTRACTS

A utility will typically have a number of contracts ranging from basic supplier agreements to more complex, long-term PPAs. Unbundling results in the creation of new corporate entities which may inherit existing contracts or sign new ones themselves. Key questions to consider:

- How will current PPAs be impacted? Will IPPs object to these changes?
- Will new PPAs be required? How will power purchase terms be set?
- Will PPAs have to be assigned to a new corporate entity? Does the new entity have sufficient resources (e.g., working capital) and a clear revenue stream that will enable it to pay for existing PPAs and sign future PPAs?
- How will management contracts be impacted?
- How is ownership of assets impacted by a new ownership structure?
- Are there critical supplier agreements which have to be transferred or split between companies (e.g., fuel, spare parts, IT services)?

### ELECTRICITY RATES

Ideally, the process of unbundling a utility and restructuring a power market will contribute to improvements in efficiency that reduce costs to the consumer. However, in the short-term, it is possible for costs to rise. This may occur due to potential increases in staffing or new expenses, such as new offices, associated with the creation of new entities. Increases may also result in situations where the incumbent utility has not been recovering its costs due to high losses or low tariffs. These shortfalls in revenues have been masked by failing to apply adequate internal pricing mechanisms. For example, in a vertically integrated utility, the generation department may not be provided with sufficient funds for operations and maintenance when there are shortfalls in revenues. However, as an independent company, those costs would form part of power purchase obligations which would be more difficult to avoid. Outreach and a strong public relations campaign are recommended to inform end-users of the expected tariff rates and build support for the changes by emphasizing the positive outcomes (improved reliability, etc.). In some situations, the government or another sponsor could help to mitigate tariff increases by providing funding for the transition. Key questions:

- What one-time costs will be incurred to support the unbundling process, including administrative costs (e.g., legal or accounting services) and capital expenditures (e.g., IT equipment, vehicles, new office space)? Can these costs be passed on to customers or do they need external funding?
- Are there liabilities or stranded assets that may be difficult or unattractive to transfer to a new company because they will be an unsustainable burden? Are there opportunities for government support to resolve these?
- How will electricity rates for the end-user be impacted by unbundling?

- Will specific groups of the population be significantly impacted more than others? Are new electricity rates tenable for consumers?
- What benefits should consumers expect to see from the unbundling and how are those being communicated?

## **SOCIAL, ENVIRONMENTAL, AND GENDER CONSIDERATIONS**

Special care and planning must be undertaken to include gender considerations, and to protect vulnerable communities, cultural resources, and environmental resources. When tasks and market sectors are shared amongst several companies and organizations, regulations to protect the community as a whole – the social, cultural, and environmental elements – must be included to prevent the “race to the bottom.” Key questions:

- Will new generation facilities be disproportionately placed in low-income or disadvantaged communities? How will women as end-users and as industry workers be impacted?
- Will cultural resources and native communities be disproportionately impacted?
- Will new generation facilities be clustered, causing magnified environmental impacts?
- Will vulnerable ecosystems be protected in the face of a growing electricity system? Will air and water resources be preserved and regulated to ensure minimal pollution and reduce health impacts?

## **CONCLUSION**

Utility unbundling and market restructuring is intended to drive economic growth by improving efficiency and financial sustainability, support environmental objectives such as increased renewable energy and reduction of emissions, and reduce poverty by improving power quality and electrification rates. The full spectrum of unbundling and privatization is not needed to achieve significant benefits to the electricity market. While full unbundling may not be needed, it is also notable that unbundling alone – without privatization or other market reforms – may not bring the desired benefits. Significant benefits can be realized through the first phases of market restructuring, by opening the generation sector competition and thereby opening the utility to market forces and corporate financial management strategies. Further, full privatization of all three sectors is not necessary to see the most impactful benefits of market restructuring.

Studies and anecdotal evidence increasingly point to the finding that a single-buyer model may offer the greatest outcomes and advantages for most low- and middle-income countries.<sup>6</sup> When reviewing the desired goals of unbundling and market restructuring, it is important to note if the full spectrum of market restructuring is necessary to achieve the desired reform goals. The steps and phases of market restructuring can and should be adapted to meet market needs, to bring about the desired outcomes of lowered costs, increased efficiency, and safe and reliable electricity to the end-user. Power market restructuring and utility unbundling is a complex process and requires significant planning and rigorous

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<sup>6</sup> FOR MORE DETAILS AND RECOMMENDATIONS, PLEASE SEE: *ENERGY SECTOR REFORM: STRATEGIES FOR GROWTH, EQUITY AND SUSTAINABILITY*; SWEDISH INTERNATIONAL DEVELOPMENT COOPERATION AGENCY; 2007; *RETHINKING POWER SECTOR REFORM IN THE DEVELOPING WORLD*; WORLD BANK, 2020



implementation. A clear vision, realistic roadmap, and adequate resourcing for each step of the process can help generate buy-in from key stakeholders and deliver the expected results.